

ABSTRACT

A white light source has a substrate with a blue light-emitting diode placed thereon and a phosphor mixture coated on the blue light-emitting diode and made of a red phosphor, a green phosphor and a yellow phosphor. The red phosphor can be CaS: Eu or SrS: Eu; the green phosphor can be SrGa₂S₄:Eu or Ca₈EuMnMg(SiO₄)₄C₁₂; and the yellow phosphor can be YAG:Ce or TbAG:Ce. The red phosphor, the green phosphor and the yellow phosphor emit, respectively, red light, green light and yellow light after receiving blue light from the blue light-emitting diode to mix a white light with a good color-rendering property.